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EXAMINER

LIANG, REGINA

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/723,778
Filing Date: November 26, 2003
Appellants: DACOSTA ET AL.

Carl Sanders
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 4/23/09 appealing from the Office action mailed 9/24/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 1-5, 7-13, 16-19, 21-23, and 26-32.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

There are four grounds of rejection to be reviewed on appeal.

1. Claims 1-5, 7-13, 16-19, 21-23, and 26-32 stand rejected under 35 U.S.C. § 112, ¶ 1 for allegedly failing to comply with the written description requirement.

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2. Claims 1-3, 5, 7-13, 16, 17, 19, 21-23, 26, 27, and 29-32 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. 5,880,411 to Gillespie et al ("Gillespie") in view of U.S. Patent No. 6,590,568 to Astala et al ("Astala").

3. Claim 4 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gillespie in view of Astala and further in view of U.S. Patent Publication No. 2003/0063073 to Geaghan et al ("Geaghan").

4. Claims 18 and 28 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gillespie in view of Astala and further in view of U.S. Patent No. 6,118,435 to Fujita et al ("Fujita").

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,880,411	Gillespie et al	03-1999
6,590,568	Astala et al	07-2003
6118435	Fujita et al	09-2000
20030063073	Geaghan et al	04-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-5, 7-13, 16-19, 21-23, 26-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The step 322 in Fig. 3 and the specification [0046] disclose “If the speed is less than the speed threshold, the change in pseudo pressure is compared to a threshold value 322. ... If the change in pseudo pressure is greater than the threshold, the processor (106) determines whether the first interval has elapsed 324. If so, the processor (106) concludes that the user is pressing 326”. The original specification discloses the change in pressure is greater than **a threshold value** where the threshold value is constant. Thus, the original specification does not provide support for “a change in pressure threshold” as claimed and as alleged by applicant in the remarks regarding claims 1 and 19.

In view of the above 112 1st problems, the claims are interpreted in light of the specification for examination purposes.

Claim Rejections - 35 USC § 103

3. Claims 1-3, 5, 7-13, 16, 17, 19, 21-23, 26, 27, 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie et al (US 5,880,411 hereinafter Gillespie) in view of Astala et al (US 6,590,568 hereinafter Astala).

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As to claims 1, 19, Gillespie discloses a method comprising: receiving a pressure signal (e.g. Z-value, Fig. 1) indicating a pressure from an input device (e.g. finger); determining a change in pressure based at least in part on the pressure signal (col. 23, lines 25-32, col. 24, lines 44-60 for example); determining a velocity associated with the pressure signal; and outputting a press signal if the velocity is less than the velocity threshold (col. 36, lines 26-47, which states "There are several ways to distinguish between a true drag and a press. **A true drag can be identified if the finger's speed of motion prior to lift-off is above a small threshold.** A press can be identified if the finger was stationary through the entire gesture, possibly ignoring small, inconsequential movements"; in other words, a press can be identified if the finger's speed of motion prior to lift-off is below a small threshold), and the change in pressure is greater than a change in pressure threshold (col. 35, lines 28-30, and col. 49, lines 8-12 for example).

Gillespie does not disclose outputting a press signal if a first interval has elapsed. However, Astala is cited to teach outputting a press signal if the value of pressure of touch input is greater than a pressure threshold and a first interval has elapsed (col. 9, lines 24-35). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gillespie to output the press signal if a first interval has elapsed as taught by Astala so as to "provide a touch screen technique for an electronic device in which the location and the time duration of an object, such as a finger or stylus or other pointed object, contacting or pressing a detection point on the touch screen, are detected" (col. 2, lines 21-23 of Astala) and to eliminate unintentional contact.

As to claims 31, 32, Gillespie discloses comparing the pressure signal to an adaptive

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pressure threshold value, and outputting the press signal if the pressure signal is greater than the adaptive pressure threshold value (302, 320 in Fig. 17A).

As to claim 2, Gillespie also discloses an adaptive pressure threshold value (col. 23, lines 29-32), wherein the adaptive pressure threshold value (Z_{TH}) is associated with an absolute pressure threshold.

As to claim 3, Gillespie discloses adaptive pressure threshold value is associated with a position received from the input device (e.g. the Z-values is derived from the position signals X and Y).

As to claim 5, Gillespie discloses the adaptive pressure threshold value is associated with a user identifier (col. 23, lines 31-32).

As to claims 16 and 26, Gillespie discloses a first pressure signal and a second pressure signal, calculating a difference signal indicative of a difference between the first and second pressure signal, comparing the difference signal to a difference threshold value and outputting the press signal if the difference signal is greater than the difference threshold value (col. 24, lines 20-60).

As to claim 7, Gillespie discloses the pressure signal comprises a pseudo pressure signal (e.g. the pressure value is varied in accordance with the capacitance value).

As to claim 8, Gillespie discloses supplying a pressure filter (48-1...48-n, Fig. 3) to the pressure signal to create a filtered pressure signal.

As to claims 9-11, 17, 21-22, 27, Gillespie discloses the pressure filter comprises a first pressure filter comprising a first attribute (e.g. high frequency, col. 13, lines 34-44), and further comprising applying a second pressure filter to the pressure signal, the second pressure filter

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comprising a second attribute (e.g. low frequency, col. 15, line 55) that is different than the first attribute.

As to claims 12, 23, Gillespie discloses applying the pressure filter comprises applying the pressure filter utilizing a sliding window (col. 28, lines 47-58).

As to claim 13, Gillespie discloses the input device comprises a touch pad (10, Fig. 1).

As to claims 29, 30, Gillespie discloses determining a rate of change of pseudo-pressure associated with the pressure signal (determining the Z value applied by the user), comparing the rate of change of pseudo-pressure with a threshold (302, 320 in Fig. 17A) and outputting a pressing signal if the rate of change of pseudo-pressure is greater than the pseudo-threshold (Fig. 17A).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie and Astala as applied to claim 31, and further in view Geaghan et al (US 2003/0063073 hereinafter Geaghan).

As to claim 4, Gillespie as modified by Astala does not disclose the adaptive pressure threshold value can vary over time. However, Geaghan teaches the thresholds can be adjusted over time (lines 16-20 in [0040]). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gillespie as modified by Astala to adjust the adaptive pressure threshold value over time as taught by Geaghan to distinguish valid touch inputs on a continuously updated basis.

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5. Claims 18 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie and Astala as applied to claims 1 and 19, and further in view of Fujita et al. (US Patent No. 6,118,435).

As to claims 18 and 28, it is noted that Gillespie as modified by Astala does not specifically disclose outputting a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal. Fujita is cited to teach a touch panel device similar to Gillespie. Fujita further discloses a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal (see abstract and Fig. 2). It would have been obvious to one of ordinary skill in the art to have modified Gillespie as modified by Astala with the tactile force feedback as taught by Fujita so as to provide an interaction between the user and the computer.

(10) Response to Argument

Appellants' remarks regarding 112 1st rejection on pages 5-6 are not persuasive. As stated in the rejection above, the step 322 in Fig. 3 and the specification [0046] disclose "If the speed is less than the speed threshold, the change in pseudo pressure is compared to a threshold value 322. ... If the change in pseudo pressure is greater than the threshold, the processor (106) determines whether the first interval has elapsed 324. If so, the processor (106) concludes that the user is pressing 326". The original specification discloses the change in pressure (ΔZ) is greater than **a threshold value** where the threshold value is constant. The specification does not disclose the "THRESHOLD" value in step 322 is changeable or variable. Thus, the original specification does not provide support for "a change in pressure threshold" as claimed and as alleged by appellant in the remarks regarding claims 1 and 19.

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In response to appellants' argument on pages 6-7 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "a change in pressure is being calculated or that the calculated change in pressure is being compared against a threshold") are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Fig. 19 and col. 49, lines 8-12 of Gillespie teaches "Fig. 19 is a timing diagram illustrating a "push" gesture. To perform this gesture, the finger is first brought near enough to cause cursor motion without causing a virtual button press. Next, **the finger pressure increase past threshold ZpushDown, causing the virtual button to be pressed**" (emphasis added). As stated in the 112 1st rejection above, step 322 in Fig. 3 and [0046] of the specification discloses "the change in pseudo pressure is compared to a threshold value 322". Gillespie clearly teaches comparing a change in pressure (i.e., increase) with a threshold and outputting a press signal if the change in pressure is greater than the threshold as claimed.

Appellants' remarks regarding Astala on pages 6-8 are not persuasive. Gillespie teaches comparing a change in pressure (i.e., increase) with a threshold and outputting a press signal if the change in pressure is greater than the threshold. Astala is used to teach **outputting a press signal if** the value of pressure of touch input is greater than a pressure threshold and **a first time interval has elapsed**. Therefore, Gillespie as modified by Astala discloses "outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed" as claimed in claims 1 and 19.

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Appellants' remarks regarding claim 4 on pages 8-9 are not persuasive. Note the discussion of claims 1 and 19 above. Gillespie as modified by Astala discloses "outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed" as claimed. Geaghan is used to teach the thresholds can be adjusted over time.

Appellants' remarks regarding claims 18 and 28 on pages 9-10 are not persuasive. Again, note the discussion of claims 1 and 19 above. Gillespie as modified by Astala discloses "outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed" as claimed. Fujita is used to teach a signal associated with a haptic effect, the haptic effect being based on the pressure signal.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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